Instructions: (1) Complete this form for those livestock production facilities in your operation that produce liquid manure. Complete the form on page 1.3 if all manure produced is in a solid (dry) form. Complete both forms if both liquid and solid manure is produced.
(2) Footnotes for Tables 1.1 and 1.2 are given on page 1.5.

Table 1.1 Animal weight capacity of this facility:

Column 1	2	3	4	5	6
Animal Species	**Manure Storage Structure(s)** [a]	**Production Phase**	**Maximum Number Of Animals Confined** (head)	**Average Weight per Animal** (lb/head) [b]	**Animal Weight Capacity** (lb) [c]
				Total Animal Weight Capacity of Operation (lb)	

Estimated Annual Animal Production (Maximum animal capacity [column 4] X production cycles per year**):** _____ **animals/year**

Table 1.2 Yearly liquid manure and nitrogen production (complete for each manure storage structure used).

Column 1	2	3	4	5		6
				Nitrogen Content of the Manure [g]		
				5A	**5B**	
Manure Storage Structure(s) [d]	**Building or Production Phase**	**Gallons Manure per Animal Space/Day** [e]	**Gallons Manure Produced/Year** [f]	**N Concentration** [h] (lb/1000 gal)	**N Production** [i] (lb/space/year)	**Total Nitrogen Produced/Year** [j] (lb)
Estimated Manure Produced/Year (gallons)				**Estimated N Produced/Year** (lb)		

Source of Manure Nitrogen Content Data (column 5, Table 1.2): standard tables, analysis of manure samples, other: _____

Instructions: (1) Complete this form for those livestock production facilities in your operation that produce solid (dry) manure. Complete form on page 1.2 if all manure produced is in a liquid form. Complete both forms if both liquid and solid manure is produced.
(2) Footnotes for Tables 1.3 and 1.4 are given on Page 1.6.

Table 1.3 Animal weight capacity of this facility:

Column 1	2	3	4	5
Animal Species	**Production Phase**	**Maximum Animal Capacity** (head)	**Average Weight per Animal** (lb/head) [k]	**Animal Weight Capacity** (lb) [l]
			Total Animal Weight Capacity of Operation (lb)	

Annual Animal Production (Maximum animal capacity [column 3] X production cycles per year**):** _____ **animals per year**

Table 1.4 Yearly solid manure and nitrogen production (include each solid manure storage structure used)

Column 1	2	3	4	5		6
				Nitrogen Content of the Manure [p]		
				5A	**5B**	
Manure Storage Structure(s) [m]	**Building or Production Phase**	**Tons of Manure per Animal Space/Year** [n]	**Tons Manure Produced/Year** [o]	**N Concentration** (lb/ton) [q]	**N Production** (lb/space/year) [r]	**Total Nitrogen Produced/Year** (lb) [s]
		Estimated Manure Produced/Year (tons)		**Estimated N Produced/Year** (lb)		

Source of Manure Nitrogen Content Data (column 5, Table 1.4): standard tables, analysis of manure samples, other: _____

Table 1.5 Available Nitrogen Concentration in Applied Manure (after deducting application losses)

Column 1	2	3	4	5		6		7	
				1st Year Available N [x]		2nd Year Available N [x]		3rd Year Available N [x]	
Manure Storage Structure [t]	**N concentration [u]** (lb/1000 gal or lb/ton)	**Planned Method of Application [v]**	**Application Loss Factor[w]**	**5A [y] %**	**5B [z]** (lb/1000 gal or lb/ton)	**6A [y] %**	**6B [z]** (lb/1000 gal or lb/ton)	**7A [y] %**	**7B [z]** (lb/1000 gal or lb/ton)

Table 1.6 Nitrogen Application Losses

Application Method	Application Loss Factor *
Knifed in or soil injection of liquid manure	0.98
Surface-apply liquid or solid (dry) manure with incorporation within 24 hours	0.95
Surface-apply liquid or solid (dry) manure with incorporation after 24 hours	0.80
Surface-apply liquid manure with no incorporation	0.75
Surface-apply solid (dry) manure with no incorporation	0.70
Irrigate liquid manure with no incorporation	0.60

***** Percent of Applied Nitrogen Remaining After Deducting Application Losses

Footnotes for Table 1.1:

[a] Indoor or outdoor formed storage, earthen basin, or anaerobic lagoon; to simplify calculations similar manure storage structures that contain manure with essentially the same nutrient concentrations may be grouped together (for example, the manure storage structures for a 3-building finishing unit with below-building pits could be identified as "3 below-building finishing pits").

[b] Use average weight of animal during a production cycle = weight in (lb) + ½ [weight out - weight in] (lb).

[c] Equals maximum number of animals to be confined in the operation or building (column 4) X average weight per animal (column 5).

Footnotes for Table 1.2 :

[d] See also footnote *'a'* under Table 1.1; complete Appendix B1 Worksheet if a manure storage structure receives manure from several animal production phases and the manure and nitrogen production values given in Appendices A1 and A2 do not adequately represent the operation (such as with a farrow-to-finish swine operation where half the pigs produced are sold as feeders and the remainder held for finishing).

[e] From Appendix A1; adjust values if operation has data justifying use of different volumes (e.g., operation uses large volume of clean up water, and thus its manure production volume per animal space is higher than that given in table).

[f] Equals maximum animal capacity (column 4 of Table 1.1) X gallons manure per animal space/day (column 3 of Table 1.2) X days building occupied/year.

[g] Complete **either** N Concentration (lb/1000 gal) or N Production (lb/animal space) column – do **not** complete both columns 5A and 5B.

[h] From standard tables, your own samples, or other sources – identify source in space provided below Table 1.2 on page 1.2. If from samples, attach laboratory report(s) or a summary of sampling results. If your own samples are used, the results may need to be converted from parts per million (ppm) to pounds/1000 gallons. The formula for making this conversion is: N concentration (lb/1000 gal) = N concentration in parts per million (ppm) X 0.00834.

[i] Equals N Production as lb/space/year (from Appendix A2) X percent of year building is occupied by animals. The values given in Appendix A2 are based on the average animal weights listed in the appendix. If this operation's average animal weight over a production cycle is different from those listed, the N production values may be adjusted to reflect the difference.

[j] Determine Total Nitrogen Produced/Year by one of following methods:

- Gallons manure produced/year (column 4) X 0.001 X N Concentration in lb/1000 gal (column 5A), or
- Maximum animal capacity (column 3 of Table 1.1) X N Production in lb/animal space (column 5B).

Footnotes for Table 1.3:

k Use average weight of animal during a production cycle = weight in (lb) + ½ [weight out - weight in] (lb).

l Equals maximum number of animals to be confined in the operation or building (column 3) X average weight per animal (column 4).

Footnotes for Table 1.4:

m To simplify calculations, similar manure storage structures that contain manure with essentially the same nutrient concentrations should be grouped together (for example, the manure storage structures for a 5-building layer chicken unit with below-cage dry manure storage could be identified as "5 layer buildings with dry manure storage"); complete Appendix B1 Worksheet if a manure storage structure receives manure from several animal production phases and the manure and nitrogen production values given in Appendices A1 and A2 do not adequately represent the operation.

n From Appendix A1.

o Equals Maximum animal capacity (column 3 of Table 1.3) X tons manure per animal space/year (column 3 of Table 1.4).

p Complete **either** N concentration (lb/ton) or N Production (lb/animal space) column – do not complete both columns 5A and 5B.

q From standard tables, your own samples, or other sources – identify source in space provided below Table 1.4 on page 1.3. If from samples, attach laboratory report(s) or a summary of sampling results. If your own samples are used, the results may need to be converted from parts per million (ppm) to pounds/ton. The formula for making this conversion is: N concentration (lb/ton) = N concentration in parts per million (ppm) X 0.002.

r From Appendix A2.

s Determine Total Nitrogen Produced/Year by one of the following methods:

- Tons Manure Produced/Year (column 4) X N Concentration in lb/ton (column 5A), or
- Maximum animal capacity (column 3 of Table 1.3) X N Production in lb/animal space (column 5B of Table 1.4).

Footnotes for Table 1.5:

t From column 1, Tables 1.2 and 1.4.

u From column 5A, Table 1.2 or from column 5A, Table 1.4.

Note: If Tables 1.2 or 1.4 were developed using the manure production per animal space values from Appendices A1 or A2, determine the N Concentration as follows:

For liquid manure: N Concentration (lb/1000 gal) = 1000 X Total N Produced/Year (lb/year, from column 6, Table 1.2) ÷ Gallons Manure Produced/Year (from column 4, Table 1.2).

For solid manure: N Concentration (lb/ton) = Total N Produced/Year (lb/year, from column 6, Table 1.4) ÷ Tons Manure Produced/Year (from column 4, Table 1.4).

v Use list of Application Methods given in Table 1.6 (page 1.4). List all methods of application that may be used for applying manure from the manure storage structure identified in column 1. If methods other than those listed in Table 1.6 are used, identify the methods and the nitrogen loss factors for those methods.

w List Application Loss Factors from Table 1.6 (page 1.4) for the methods of application listed in column 3.

x Recent research by Iowa State University indicates 100 percent of the nitrogen contained in liquid manure from confinement swine operations is available for plant use in the first year after application. Prior research indicates this may not be the case for liquid manure from other animal species or for solid (dry) manure from confinement operations. A manure management plan may be developed based on the assumption that less than 100 percent of the nitrogen remaining in the manure after deducting application losses will be available for plant use in the first crop year after manure application. However, for planning purposes all nitrogen not considered available in the first crop year must be accounted for in subsequent crop years, and must be considered in determining allowable nitrogen applications (from all sources) during those years. Suggested availability values are: liquid swine manure – 100 % in 1st crop year; other liquid manure – 75% , 15%, and 10% in 1st, 2nd, & 3rd crop years respectively; solid manure - 60% to 75% in 1st crop year, remainder split between 2nd and 3rd years.

y List, in columns 5A, 6A, and 7A respectively, the 1st, 2nd, and 3rd crop year nitrogen availability percentages being used in this plan for the manure storage structure(s) identified in column 1.

z Determine the Available N Concentration for each crop year as follows: N Concentration (from column 2, Table 1.5) X Application Loss Factor (from column 4, Table 1.5) X Crop Year N Availability Percentage (from columns 5A, 6A, or 7A).

Instructions:

(1) Complete this form for each field being used for manure application in this plan. If several fields on a farm have similar crop rotations and county average yields or proven yields for a farm are used to determine optimum crop yields, these fields may be combined and reported as one.

(2) Footnotes are given on page 2.5 and 2.6

Field designation [a] _____ **Farm location** _____
(County, Township, Section, ¼ Section)

Field is:
_____ owned by the owner of the animal feeding operation
_____ rented for crop production
_____ available under terms of written manure application agreement (attach copy of agreement)

Total acres in this field _____ acres
Acres not available for manure application [b]… _____ acres
Net acres available for manure application….. _____ acres

Method used to determine optimum yields [c]**:**
_____ Iowa Ag Statistics county yield averages [d]
_____ County average yields - FSA catastrophic crop insurance program [e]
_____ Multi-peril insurance proven yields [e]
_____ Individual farm proven yield records [e]
_____ Farm Service Agency (FSA) yields [e]
_____ Soil survey interpretation record

Optimum yields for this field [f]**:**

Crop	**Optimum yield** (bu/acre, tons/acre)
Corn	
Soybeans	

Reduction of soil loss and surface water pollution: Identify the methods, structures, or practices that will be used to prevent or diminish soil loss and potential surface water pollution during the application of manure on this field: _____

Does this field include highly erodible land (HEL) on which manure will be applied: **Yes** _____ **No** _____
(If yes, a summary or copy of the conservation plan for this HEL cropland must be provided as an attachment to this plan.)

Will spray irrigation be used to apply manure on this field [g]**:** **Yes** _____ **No** _____
(If yes, identify irrigation method):
_____ low-pressure irrigation system
_____ restricted spray irrigation
_____ other (identify): _____

Field designation (same as on page 2.1) _____

Soil tests (optional)**:** Has field been soil tested in last 3 years to determine phosphorus (P) and potassium (K) levels? **Yes** _____ **No** _____

If yes, levels of P and K found **:**

	Very Low	**Low**	**Optimum**	**High**	**Very High**
P					
K					

Phosphorus and potassium concentrations of manure [h] (optional)**:**

Manure storage type	**P_2O_5** (lb/1000 gal, lb/ton)	**K_2O** (lb/1000 gal, lb/ton)	**Source of data**

Crop nutrient use rates (lb/bu or lb/ton) [i]**:**

Crop	**N use rate**	**P_2O_5 use rate** (Optional)	**K_2O use rate** (Optional)	**Source of use rate information**
Corn				
Soybeans				

Crop schedule: **Year 1:** _____ **Year 2:** _____ **Year 3:** _____
Year 4: _____ **Year 5:** _____ **Year 6:** _____

Timing of planned manure application: _____
[month(s) or season(s)]

Season and year of first application on this field: _____

Part 2 Determining Maximum Allowable Manure Application Rates for Individual Fields

Field designation (same as on page 2.1) _____

Table 2.1 Manure management plan for this field

		Year [j]	1	2	3	4	5	6
1	**Crop** (corn, soybeans, etc.)							
2	**Optimum Crop Yield** (from page 2.1)	(bu or tons/ac)						
3	**Net crop acres available for manure application** (from page 2.1)	(acres)						
4	**Crop N needed (or crop N utilization)** = optimum crop yield (from line 2) X crop N use rate (from page 2.2)	(lb/acre)						
5a	• **Legume N credit** [k]	(lb/acre)						
5b	• **Commercial N credit** (amount of N applied in commercial fertilizers)	(lb/acre)						
5c	• **Manure N carryover credit** [l]	(lb/acre)						
6	• **Total N Credits** (add lines 5a, 5b, & 5c)	(lb/acre)						
7	**Remaining crop N need** (line 4 minus line 6)	(lb/acre)						
8	Before completing the remainder of Table 2.1, read Instructions for Table 2.2 on page 2.4. If the operation intends to apply manure to this field during the period of this manure management plan, identify the manure storage structure and application method to be used, and complete the remainder of this table							
	Manure storage structure:		(from column 1, Table 1.5, page 1.4)					
	Planned method of manure application:		(from column 3, Table 1.5, page 1.4)					
9	**1st Year Available N** (from column 5B, Table 1.5, page 1.4, for the manure structure and application method identified in line 8)	(lb/1000 gal or lb/ton)						
10	**Manure application rate that will supply remaining crop N need** = remaining crop N need (line 7) ÷ 1st year available N (line 9)	(gal/acre) x 1000 **OR** (tons/acre)						
11a	• **P_2O_5 applied if manure is applied at rate given in line 10** = (line 10 X P_2O_5 concentration from page 2.2) **Optional**	(lb/acre)						
11b	• **K_2O applied if manure is applied at rate given in line 10** = (line 10 X K_2O concentration from page 2.2) **Optional**	(lb/acre)						
12	**Planned manure application rate per acre on this field** [m] (cannot exceed rate listed on line 10)	(gal/acre or tons/acre)						
13	**Acres on which manure will be applied** (cannot exceed net available acres identified in line 3)	(acres)						
14	**Planned total manure application on this field** = Planned manure application rate (line 12) X acres on which manure will be applied (line 13)	(gal/field or tons/field)						
15	**Amount of remaining crop N need that will be supplied by manure** = planned application rate (line 12) X 1st year available N (line 9)	(lb/acre)						
16	**Additional N that can be applied per acre as commercial fertilizer (in addition to amount listed in line 5b)** = line 7 minus line 15	(lb/acre)						

Instructions for Table 2.2: If manure from several manure storage structures could be applied to this field or more than one method of manure application is being considered, Table 2.2 can be used to determine the maximum allowable rate of manure application on this field from each structure and application method. Although completion of Table 2.2 is optional, its use may assist an operation in determining which manure source(s) may be most appropriate for application to this field and in selecting an appropriate manure application method.

Operations choosing to complete Table 2.2 should enter the required data in columns 1 - 4 and then calculate the maximum allowable per acre and per field application (columns 5 & 6) for each manure storage structure and each application method under consideration for this field. That information should then be used to determine the manure storage structure and manure application method to enter in line 8 of Table 2.1, and then complete the remainder of Table 2.1.

Operations choosing not to complete Table 2.2 should enter the appropriate manure storage structure and manure application method information for this field on line 8 in Table 2.1, and then complete the remainder of Table 2.1.

Table 2.2 Determining maximum allowable manure application rates for this field

Column 1	2	3	4	5	6
Manure Storage Structure (from Table 1.5, column 1)	**Remaining Crop N Need** (from Table 2.1, line 7) - (lb/acre)	**Application Method** (from Table 1.5, column 3)	**1st Year Available N Concentration**[n] (from Table 1.5, column 5B) (lb/1000 gal or lb/ton)	**Maximum Application Rate** (gal/acre) [o]	**Maximum Manure Application to Field** (gal/field) [p]

a Field designation may be by Farm Services Agency (FSA) field number, landowner's name, or other suitable designation. A plat map showing location of the confinement feeding operation and all application fields should be submitted. In addition, aerial photos (FSA section photos) of the disposal fields should be submitted, with the boundaries of the individual application fields marked. Also marked on the aerial photos should be areas of the fields which are unavailable or unsuitable for manure application, and areas where specific restrictions on manure application apply. Areas where specific restrictions on manure application include:

- within 200 feet of a designated area: A designated area means a known sinkhole, or a cistern, abandoned well, unplugged agricultural drainage well, agricultural drainage well surface tile inlet, drinking water well, lake, or a farm pond or a privately owned lake as defined in Iowa Code Section 462A.2. A designated area does not include a terrace tile inlet or surface tile inlet other than an agricultural drainage well surface tile inlet. Iowa law requires manure from a confinement feeding operation be injected or incorporated within 24 hours of application if applied within 200 feet of a designated area. However, this restriction does not apply if a 50-foot buffer of permanent vegetation surrounds the designated area and no manure is applied within the 50-foot buffer.
- within 750 feet of neighboring residence, church, school, business, or public use area: Iowa law requires liquid manure from a confinement feeding operation be injected or incorporated within 24 hours of application if applied within 750 feet of a neighboring residence not owned by the owner of the confinement feeding operation, a church, school, business, or public use area. However, this restriction does not apply if a written waiver is obtained from the owner of the property benefiting by this distance requirement.
- areas where liquid manure is applied through spray irrigation systems: see footnote *"g"* below

b Acres not available for manure application include areas where topography, soils, or other factors make manure application impossible; areas where manure will not be applied; areas where application is prohibited under a manure disposal agreement; and areas where Iowa law or DNR rules prohibit manure application. It may also include areas where Iowa law or DNR rules restrict manure application to methods different than those being used by the operation.

c Documentation of the information used to determine optimum yields must be provided with the plan. Documentation may include copies of historical farm yield records, soil survey maps and average yields for the soils found, FSA yield data, etc... Documentation is not required if the Appendix A3 tables are used to determine optimum corn and soybean yields (see footnote "*d*" below).

d If Iowa Ag Statistics county average yields are used, Appendix A3 may be used to determine optimum yields for corn and soybean crops for all Iowa counties. The optimum yield for each crop may be set equal to either the average of the last 5-year county yields plus 10 percent (given in column 8 of the Appendix A3 tables) or the average of the highest 4 out of the last 5-year county average yields (given in column 9 of the Appendix A3 tables). If crops other than corn or soybeans are grown, Iowa Ag Statistics yield data for those crops will need to be obtained and optimum yield levels calculated (both the yield data and the calculations should be provided with the plan).

◊ ***e*** If any of these methods are used to determine optimum yields, the Appendix B2 Worksheet should be used to calculate the optimum yields.

f The corn crop usage rate and the optimum corn crop yield may be used instead of the table value for a legume crop for those years in the crop schedule that legumes are part of a corn/legume rotation.

g Use of spray irrigation for manure application: Iowa law includes a number of requirements and restrictions on applying manure through spray irrigation. If spray irrigation is being used, the plan should identify the actions the operation will take to ensure compliance with these requirements and restrictions. In addition, the plan should identify any additional methods or practices the operation will use to reduce potential odor, if any additional methods will be used.

h Typical P_2O_5 and K_2O concentrations for various types of manure storage structures are given in Appendix A4. These values, your own samples, or data from other credible sources may be used. If from samples, attach laboratory report(s) or a summary of sampling results. If your own samples are used, the results may need to be converted from parts per million (ppm) to lb/1000 gallons or lb/ton. The formulas for making these conversions are:

N concentration in lb/1000 gal = N concentration in parts per million (ppm) X 0.00834

N concentration in lb/ton = N concentration in parts per million (ppm) X 0.002

i Appendix A5 lists crop nitrogen requirements for various crops. These values, or nitrogen use requirements from other credible sources, may be used to determine the crop nitrogen needs for the crops included in the crop schedule for this field. Both the nitrogen use requirements used in developing this plan and the source of the nitrogen use data should be provided. For non-legume crops such as corn or grasses, the crop N need value represents the amount of nitrogen required to produce the optimum yield for that crop, and is determined by multiplying the crop nitrogen requirement (in lb/bu or lb/ton of yield) times the optimum crop yield. For legume crops such as soybeans or alfalfa, the crop utilization value represents the amount of nitrogen these legumes will utilize from the soil in producing the optimum crop yield, provided nitrogen is available at these levels in the soil. Again, this amount is determined by multiplying the crop utilization rate (in lb/bu or lb/ton of yield)) times the optimum crop yield. **Note:** see also footnote *"f."*

While Iowa law does not require that phosphorus and potassium be considered in development of manure management plans, producers are encouraged to do so. Appendix A6 gives the P_2O_5 and K_2O removal rates for Iowa crops. If the field where manure is being applied tests high or very high in phosphorus and phosphorus is being applied to only replace that removed in the harvested crops, it should be assumed that all of the phosphorus in the manure is available to plants in the year of application. If the field tests very low, low, or optimum for phosphorus, it should be assumed that only 60 percent of the phosphorus in manure is available to plants in the year of application. For potassium, it should be assumed that 100 percent of the potassium in manure is available to plants in the year of application.

j Although Table 2.1 allows a manure management plan for this field to be developed for six crop years, developing a six-year plan is not required. As a minimum, a manure management plan for a specific application field should cover the period of the crop rotation followed on that field (i.e. , for a corn, corn, soybean rotation, the plan should cover a minimum of three crop years). Producers are encouraged to consider a longer planning period, particularly if the plan is being developed based solely on nitrogen considerations, since a longer planning period can more clearly identify whether a significant build-up of phosphorus may be occurring.

k Credit for nitrogen carryover from prior year legume crops should be determined as follows:

- last year's soybean crop: 1 lb nitrogen per bushel of yield, maximum of 50 lb nitrogen per acre credit
- legume forage crop:
  - ◊ last year's crop with 50 to 100% alfalfa or other legume in stand: 100 to 140 lb nitrogen per acre
  - ◊ last year's crop with 20 to 50% alfalfa or other legume in legume/grass mixture: 50 to 80 lb nitrogen per acre
  - ◊ two years ago crop with 50 to 100% alfalfa or other legume in stand: 30 lb nitrogen per acre
- last year's legume green manure crop: 100 lb nitrogen per acre

l Manure N carryover credit represents the amount of nitrogen available for crop use due to manure applications made in prior crop years. The carryover N credit is determined by:

1. multiplying the amount of manure (in 1000 gal/acre or ton/acre) applied to the field in the previous crop by the 2nd Year Available N concentration (from column 6B of Table 1.5) for the applicable manure storage source and method of application (from columns 1 and 3 of Table1.5, respectively);
2. multiplying the amount of manure (in 1000 gal/acre or ton/acre) applied to the field two crop years ago by the 3nd Year Available N concentration (from column 7B of Table 1.5) for the applicable manure storage source and method of application (from columns 1 and 3 of Table1.5, respectively);
3. adding the resulting N carryover credit values together

m Under Iowa law, confinement feeding operations required to submit a manure management plan to DNR **are prohibited from applying manure in excess of the nitrogen use levels needed to obtain optimum yields** for the crops grown. To remain in compliance with this law, manure management plans must, as a minimum, be based on nitrogen considerations. However, for most manure, basing applications only on nitrogen considerations will result in applications of phosphorus and potassium above crop needs. To make better use of all manure nutrients and to avoid potential problems associated with phosphorus buildup in soil, producers are encouraged (but not required) to consider all nutrients in developing their manure management plans.

DNR rules include three exemptions to the prohibition on applying manure in excess of the nitrogen use levels needed to obtain optimum crop yeilds. These exemptions are given in 65.17(4)'b', 65.17(4)'c', and 65.17(6)'b' of the DNR rules, and may be found in Appendix A7. Operations meeting the exemption criteria outlined under these subrules may develop a manure management plan based on the provisions of the applicable subrule, and must provide documentation demonstrating that the operation qualifies for the exemption.

n Use the **1st Year Available N Concentration** value (from Table 1.5, column 5B) that corresponds with the **Manure Storage Structure** identified in column 1 of Table 2.2 and the **Applicaton Method** identified in column 3 of Table 1.5.

o Determine the **Maximum Application Rate** by dividing the **Remaining Crop N Need** (from column 2 of Table 2.2) by the **1st Year Available N Concentration** (from column 4 of Table 2.2).

p Determine the **Maximum Manure Application to Field** by multiplying the **Maximum Application Rate** (from column 5 of Table 2.2) by the **Net Acres Available for Manure Application** (from line 3, Table 2.1).

Table 3.1 Manure Management Plan Summary for Year: _____

Column 1	2	3	4	5	6	7	8
						Planned Manure Application	
Field (from page 2.1)	**Planned Crop** (from line 1, Table 2.1)	**Net Acres Available** (from line 3, Table 2.1)	**Manure Storage Structure** (from line 8, Table 2.1)	**Acres Receiving Manure** [a] (from line 13, Table 2.1)	**Manure Application Method** (from line 8, Table 2.1)	Gallons/Acre or Tons/Acre (from line 12, Table 2.1)	Gallons/Field or Tons/Field [b] (from line 14, Table 2.1)
Estimated land area required for manure application (acres)					**Estimated manure produced / year**		

[a] If manure from more than one manure storage structure will be applied to a field, the total acres of that field receiving manure (for all storage structures) should not exceed the net acres available in that field.

[b] For each manure storage structure, the gallons or tons of manure applied to all fields (total of the gallons or tons applied to all fields from that structure, as listed in column 8) should equal the gallons or tons of manure produced per year, as given in column 4 of Table 1.2 (for liquid manure) or Table 1.4 (for solid manure).